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PTO/SB/01 (08-03)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE work Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Attorney Docket Number 2003-IP-010346U1 ARATION FOR UTILITY OR First Named Inventor Larry J. Buchanan **DESIGN** COMPLETE IF KNOWN PATENT APPLICATION (37 CFR 1.63) Application Number 10/727,454 Filing Date Declaration Declaration 12/4/2003 OR Submitted after Initial Submitted Art Unit Filing (surcharge With Initial

Examiner Name

(37 CFR 1.16 (e))

required)

I hereby declare that:								
Each inventor's residence, mailing address, and citizenship are as stated below next to their name.								
I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:								
Method of Optimizing Production of Gas from Subterranean Formations								
·								
		(Title of the Invention))					
the specification of which		,						
is attached hereto								
OR	·							
X was filed on (MM/DD/Y	was filed on (MM/DD/YYYY) 12–4–2003 as United States Application Number or PCT International							
Application Number 10/727,454 and was amended on (MM/DD/YYYY) (if applicable).								
I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.								
			entability as defined in	37 CER 1.56 including for				
I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application								
and the national or PCT intern								
I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one								
country other than the United States of America, listed below and have also identified below, by checking the box, any foreign								
application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date								
before that of the application on which priority is claimed.								
Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? Yes No				
M Additional foreign applicat	ion numbers ar	e listed on a supplemental pr	iority data sheet PTO/SP	N/02B attached bereto				
II II Additional location applicat	ion numbers at	e nated on a aupplemental bi	ionity data sheet i 10/3E	ייטבט מנומטווכע ווכוכנט.				

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DECLARATION — Utility or Design Patent Application

Direct all correspondence to: Customer Number: OR Correspondence address below									
Name									
Halliburton Energy Services - ATTN: Robert A. Kent									
Address P.O. Box 1431									
City				Stat	le	-			ZIP
Duncan				ок)K				73536-0440
Country		Telephon	те			Fax			
USA		580-251-3	3125	580-251-3917					
and belief are believed to be statements and the like so ma	I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.								wledge that willful false
NAME OF SOLE OR FIRST IN	IVENTOR:		Ap	etition	has ber	en filed	for thi	- is unsian	ned inventor
Given Name	,			<u> </u>		amily Na		o unoig.	led inventor
(first and middle [if any]) Larry J.						Surnar Suchanar			
Inventor's Signature	Bu	chan	ran		<u> </u>		<u></u>		Date 2-4-04
Residence: City	State			Cour	ntry			Citizen	
Flower Mound	тх		_}	USA USA			USA	İ	
Mailing Address									·
1905 Haversham Dri	.ve								
City	State			ZIP					Country
Flower Mound	тх			75022				JSA	
NAME OF SECOND INVENTO	R:				A per	tition ha	ıs bee	n filed fo	or this unsigned inventor
Given Name				<u> </u>		mily Nar			
(first and middle [if any]) S. Dana					≪ଞ	Surname	e 		
Inventor's Signature Lhuiel Due Weield 1/22/04									
Residence: City	State			Country Citize			Citizens	ship	
Carrollton	TX			US USA		USA			
Mailing Address 1016 Hunters Creek Drive									
City	State			\Box	ZIP			Country	у
Carrollton	TX			75007 USA				USA	
Additional inventors or a legal rep	presentative are bein	a named on	the 1 si	upplem	ental sheet	ds) PTO/S	 B/02A	or 02LR at	ttached hereto.

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. ADDITIONAL INVENTOR(S) DECLARATION Supplemental Sheet Page 1---- of -1 A petition has been filed for this unsigned inventor Name of Additional Joint Inventor, if any: Given Name (first and middle (if any) Family Name or Surname Don P. Russell Inventor's Signature Date 2-10-04 Plano TXResidence: City State Country USA Citizenship US 4701 Charles Place, Apt. 1512 Mailing Address Mailing Address 75093 TX Plano Country USA State Name of Additional Joint Inventor, if any: A petition has been filed for this unsigned inventor Given Name (first and middle (if any) Family Name or Surname Date Inventor's Signature Residence: City State Country Citizenship Mailing Address Mailing Address State Zip Country Name of Additional Joint Inventor, if any: A petition has been filed for this unsigned inventor Given Name (first and middle (if any) Family Name or Surname Inventor's Signature Date Residence: City Country Citizenship Mailing Address

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Zip

Country

State

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STATEMENT L	INDER 37 CFR 3.73(b)
Applicant/Patent Owner: Larry J. Buchanan, e	t al
Application No./Patent No.: 10/727,454 Filed	/Issue Date: <u>12/4/2003</u>
Entitled: Method of Optimizing Production	of Gas from Subterranean Formations
Halliburton Energy Services, Inc., a	
	pe of Assignee, e.g., corporation, partnership, university, government agency, etc.)
states that it is: 1. 囚 the assignee of the entire right, title, and interest; or	
2. an assignee of less than the entire right, title and inter The extent (by percentage) of its ownership interest is in the patent application/patent identified above by virtue of e	 %
A. [X] An assignment from the inventor(s) of the patent appli in the United States Patent and Trademark Office at Re attached.	cation/patent identified above. The assignment was recorded eel, or for which a copy thereof is
OR	
below:	ation/patent identified above, to the current assignee as shown
1. From:	
The document was recorded in the United State Reel, Frame	
From: The document was recorded in the United State.	lo:s Patent and Trademark Office at
Reel, Frame	, or for which a copy thereof is attached.
3. From: T The document was recorded in the United States	Го:
The document was recorded in the United States Reel, Frame	s Patent and Trademark Office at
[] Additional documents in the chain of title are liste	ed on a supplemental sheet.
[X] Copies of assignments or other documents in the chain of [NOTE: A separate copy (i.e., the original assignment doc must be submitted to Assignment Division in accordance recorded in the records of the USPTO. <u>See</u> MPEP 302.08	sument or a true copy of the original document) with 37 CFR Part 3, if the assignment is to be
The undersigned (whose title is supplied below) is authorized	to act on behalf of the assignee.
3-10-2004	Robert A. Kent
Date	Typed or printed name
580-251-3125	Lahul a tent
Telephone number	Signature
	Senior Counsel
	Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

ASSIGNMENT

Whereas, I/We, Larry J. Buchanan of Denton County, Carrollton, Texas, S. Dana Weida of Denton County, Carrollton, Texas, and Don P. Russell of Denton, Carrollton, Texas, have invented "Method of Optimizing Production of Gas from Subterranean Formations" for which I have made application for Letters Patent of the United States; and

Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application serial number 10/727,454 filed on 12/4/2003, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 4th day of Ianuary, 2004, at Carrollton, Denton County, Texas, U.S.A.

	Jany Dullane Signature
STATE OF TEXAS) Dally S) ss COUNTY OF DENTON)	
Before me personally appeared said L instrument to be his free act and deed this	arry J. Buchanan and acknowledged the foregoing February day of January, 2004.
Seal	Cherl J. Ballinger
	CHERYL L. BALLINGER Notary Public, State of Texas Commission Expires 09-23-2007
Executed this 232 day of January, 20	004, at Carrollton, Denton County, Texas, U.S.A.
	L D Weeds Signature
Tennsylvanio STATE OF TEXAS) Allegheny) ss COUNTY OF DENTON)	
Before me personally appeared said S. Dar instrument to be his free act and deed this	na Weida and acknowledged the foregoing 23rd day of January, 2004.
Seal	Jonann John Surkall

Notarial Seal ToniAnn S. Turkall, Notary Public Findley Twp., Allegheny County My Commission Expires Feb. 19, 2004

Member, Pennsylvania Ansociation of Notarias

Din Pland Signature

STATE OF TEXAS)

Dallas) ss

COUNTY OF DENTON)

Before me personally appeared said **Don P. Russell** and acknowledged the foregoing instrument to be his free act and deed this day of January, 2004.

Seal

Cherf L. Ballenger



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| Application Number | 10/727.454

Application Number 10/727,454 Filling Date 12/4/2003 First Named Inventor Larry J. Buchanan, et al Title Method of Optimizing Art Unit Examiner Name Attorney Docket Number 2003-IP-010346U1

POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

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mere	by appoint: Practitioners at Custom	er Number		-		Place Customer Number Bar Code Label here		
1 (OR			<u> </u>		1		
X	Practitioner(s) named b	elow:	/					
			Registration Number					
	See attached							
	DEC GEOGRAPHO							
	<u></u>							
	as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.							
Please	change the corresponde	ence address	for the above-identified applica	ion to:				
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	City			State		Zip		
	Country							
	elephone			Fax				
I am the	e: Applicant/Inventor.							
X Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).								
SIGNATURE of Applicant or Assignee of Record								
Vame	Robert A. I	Kent						
Signatur		7 ten	Z					
Date	3-10-	2004	7		Telephone	580-251-3125		
	IOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple orms if more than one signature is required, see below*.							
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This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Present and Trecognists Clarge U.S. UP-PATENCE COMMENT OF COMMENT

DECLARATION

REGISTERED PRACTITIONER INFORMATION (Supplemental Sheet)

Nazae	Registration Number	Name	Registration Number		
Halliburton Energy Services, Inc. Practitioners		Baker Botts Practitioners			
William E. Shull	29,438	Mitchell D. Lukin	30,772		
William M. Imwalle	35,904	Carey C. Jordan	47,646		
Robert A. Kent	28,626	lona Kaiser	53,086		
Craig W. Roddy	36,256				
John W. Wusternberg	35,415				
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